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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,384	02/24/2004	Jason Churchill Costa	418268831US	2881
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PERKINS COIE LLP/MSFT P. O. BOX 1247 SEATTLE, WA 98111-1247				
			EXAMINER BASHORE, WILLIAM L	
			ART UNIT 2176	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/786,384	<b>Applicant(s)</b> COSTA, JASON CHURCHILL	
	<b>Examiner</b> William L. Bashore	<b>Art Unit</b> 2176	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-10 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-10 and 17-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is responsive to communications: amendment filed 4/26/2007, to the original application filed 2/24/2004. IDS filed 3/17/2004.
2. Claims 1-21 pending. Claims 1-5, 11-16 have been withdrawn as per Response to Restriction practice. Claims 6-10, 17-21 are presented for examination, of which claims 6, 17 are independent.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 6-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

**In regard to independent claim 6**, claim 6 contains three (3) “if” conditions. It is unclear to the examiner what occurs (claim 6 provides no alternative paths) if any and/or all of said “if” conditions are not met. Accordingly, claim 6 is vague and indefinite.

For the purpose of compact prosecution, the following rejections are based upon a possible interpretation of the claimed “if” conditions as being met.

**In regard to dependent claims 7-10**, claims 7-10 are rejected for fully incorporating the deficiencies of their respective base claims.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 6-10, 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atkins (hereinafter Atkins), U.S. Publication No. 2005/0071783, filed 9/30/2003, published 3/31/2005, in view of Rogers et al. (hereinafter Rogers), U.S. Patent No. 6,133,914, filed 1/7/1998, issued 10/17/2000.**

**In regard to independent claim 6**, Atkins teaches repositioning images on a page, comprising analysis of a binary tree with nodes, leaves, and bounding box dimensions (e.g. strict area layout). Referring to Atkins Figure 5B, bounding box areas are computed for sub-trees so that node 511 (including leaves 502 and 503) can be a “first” layout. It is noted that an “initial” analysis of the nodes of Atkins can be reasonable interpreted as previously “unsearched”.

Although item 504 is currently a leaf, nevertheless, it is possible for item 504 to become a node (as nodes and leaves are typically added to a binary tree) so as to become a sibling node, and referred to as a “second” layout (analogous to node 509 currently presented as a sibling to node 508).

Item 510 (Figure 5B of Atkins) along with all its descendents (including sub-trees, etc.) can be reasonably interpreted as a “third” layout.

Root node 507 comprises all items, sub-trees, etc. of the tree, and can be reasonably interpreted as a “fourth” layout, with height and width assigned accordingly (see at least Atkins paragraph [0073]).

Atkins teaches determining bounding box dimensions for each node (see at least Atkins paragraph [0057]), to which a “brick layout” is assigned (no white space existing between images), therefore resulting in

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an efficient (e.g. minimized, or compact) layout, as applied to each layout above, and rendered (displayed on an output device accordingly (Atkins paragraph [0047], and Figure 5B).

Atkins teaches an aspect ratio applied to layouts, and is compared with aspect ratios of the parent's bounding boxes accordingly via scoring. The aspect ratios and scoring analysis are applied to each bounding box accordingly (Atkins paragraphs [0058], [0077] to [0081], and [0088] to [0089]).

Please refer to the following citations in support of the above analysis: Atkins Abstract, at least Figure 5B, paragraphs [0015], [0017], [0049], [0051], [0052], [0057] to [0059], also [0073].

Atkins is silent regarding a bottom up analysis (e.g. recursion) of Atkins's nodes (as currently claimed). However, Rogers teaches an interactive graphical user interface comprising layouts represented by the tree within Rogers Figure 1 (see also Rogers column 7 lines 1-30, column 10 lines 60-65). Rogers also teaches that the position routine is used recursively, beginning with children and working up through the levels of parents (e.g. bottom up approach) (Rogers column 12 lines 55-60). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Rogers to Atkins, providing Atkins the benefit of at least code efficiency that recursion provides.

**In regard to dependent claim 7**, claim 7 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Atkins teaches a scoring of layouts (Atkins at least paragraph [0058], [0059]). Atkins also teaches areas in terms of square inches (Atkins paragraphs [0049], [0072]). Atkins does not forcefully teach square root of the total area. However, since it was well known at the time of the invention that a method of layout providing a level of efficiency (e.g. Atkins's "brick layout") is a square (calculated by taking the square root of the total square inch area), it would have been obvious to one of ordinary skill in the art at the time of the invention to apply this calculation so as to provide Atkins the benefit of an efficient "brick layout".

**In regard to dependent claim 8**, claim 8 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Atkins teaches a scoring of layouts (Atkins at least paragraph [0058], [0059]). Atkins also teaches areas in terms of square inches (Atkins paragraphs [0049], [0072]). Atkins does not forcefully teach square root of the total area. However, since it was well known at the time of the invention that a method of layout providing a level of efficiency (e.g. Atkins's "brick layout") is a square (calculated by taking the square root of the total square inch area), it would have been obvious to one of ordinary skill in the art at the time of the invention to apply this calculation so as to provide Atkins the benefit of an efficient "brick layout".

**In regard to dependent claim 9**, claim 9 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Atkins teaches a scoring of layouts (Atkins at least paragraph [0058], [0059]). Atkins also teaches areas in terms of square inches (Atkins paragraphs [0049], [0072]). Atkins does not forcefully teach square root of the total area. However, since it was well known at the time of the invention that a method of layout providing a level of efficiency (e.g. Atkins's "brick layout") is a square (calculated by taking the square root of the total square inch area), it would have been obvious to one of ordinary skill in the art at the time of the invention to apply this calculation so as to provide Atkins the benefit of an efficient "brick layout".

**In regard to dependent claim 10**, claim 10 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Atkins teaches a scoring of layouts (Atkins at least paragraph [0058], [0059]). Atkins also teaches areas in terms of square inches (Atkins paragraphs [0049], [0072]). Atkins does not forcefully teach square root of the total area. However, since it was well known at the time of the invention that a method of layout providing a level of efficiency (e.g. Atkins's "brick layout") is a square (calculated by taking the square root of the total

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square inch area), it would have been obvious to one of ordinary skill in the art at the time of the invention to apply this calculation so as to provide Atkins the benefit of an efficient “brick layout”.

**In regard to independent claim 17**, claim 17 reflects the medium comprising computer readable instructions used for implementing the method as claimed in claim 6, and is rejected along the same rationale.

**In regard to dependent claim 18**, claim 18 incorporates substantially similar subject matter as claimed in claim 17, and in further view of the following, is rejected along the same rationale.

Atkins teaches an aspect ratio applied to layouts, and is compared with aspect ratios of the parent’s bounding boxes accordingly via scoring. The aspect ratios and scoring analysis are applied to each bounding box accordingly (Atkins paragraphs [0058], [0077] to [0081], and [0088] to [0089]). All the bounding boxes of Atkins’s tree serves to determine routing of branches.

Atkins teaches spacing between images (Atkins at least paragraph [0047]).

**In regard to dependent claims 19-21**, claims 19-21 reflect the medium comprising computer readable instructions used for implementing the method as claimed in claims 7-9 respectively, and are rejected along the same rationale.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 6-10, 17-21 have been considered but are moot in view of the new ground(s) of rejection.

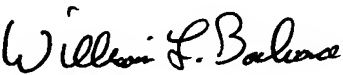
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***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Bashore whose telephone number is (571) 272-4088. The examiner can normally be reached on 9:00 am - 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on (571) 272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**WILLIAM BASHORE**  
**PRIMARY EXAMINER**

July 8, 2007